## WorkKeys/MEAP/CTE – Michigan Academic Standards Crosswalk

This project was a collaborative effort between the Michigan Department of Career Development, Office of Career and Technical Preparation, and identified state level experts, professional organizations, and content area teachers in response to requests from administrators and educators. Each crosswalk was developed to the Standards level of the Michigan Curriculum Frameworks. For further development, local district CTE programs will need to do benchmark level linkage with their local curriculum.

As we move forward in the educational process to prepare students for their future, we must recognize our responsibility to provide high quality technical and academic education to best prepare these students for their future goals.

#### Overview:

- This is a tool to assist Local Educational Agencies to develop crosswalks at the benchmark level for specific programs.
- CTE curriculum Standards /unit goals were the basis of the crosswalk
- Local district programs need to do benchmark level linkage with their local curriculum.
- Curriculum Standards support the curriculum, with a broad-based focus.
- WorkKeys crosswalks used national occupational job profile information as the basis of determining performance level expectations.
- For new program application submission starting 2003-2004, crosswalk at the benchmark level will be required.

#### Benefits

- Provides linkages to National Occupational Standards for improvement in program delivery
- Will assist "highly qualified" instructional staff in documenting accountability and supporting new national initiatives
- Demonstrate CTE support of the Michigan Curriculum Frameworks and MEAP objectives
- To enable districts with CTE programs to strengthen communication with curriculum directors, superintendents and building administrators.
- Curriculum crosswalk will encourage communications between Career and Technical and academic educators
- Assist locals in establishing support for academic credit granted for Career and Technical Education programs

### Plan Dissemination

- On MDCD/OCTP Web site
  - o Posted by pathway
  - Link to Agriscience Web site
- State update meetings
- Presentation to Teacher groups
- Presentations to Administrator groups
- Distribution to Teacher Educators
- Feature item in Newsletters, updates to field
- MDF
- Available to Education Institutions

# FAMILY AND CONSUMER SCIENCES (LIFE MANAGEMENT EDUCATION)

## 19.000 (non-wage earning) CONTENT STANDARDS CROSSWALK

		Michigan Curriculum Frameworks (As assessed by the Michigan Educational Assessment Program- MEAP)				
(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands		
Content Standard 1: All students will demonstrate skills necessary to function in family roles and relationships that are transferable to roles and responsibilities within the workplace and community.	Strand 4: Using Scientific knowledge in Physical Science: 4.1 All students will measure and describe the things around us  Strand 5: Using Scientific knowledge in Earth Science: 5.3 All students will analyze the relationships between human activities and the atmosphere.	5.1 Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems.  5.2 Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems.  6.2 Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.  4. All students will use the English language effectively.  7. All students will demonstrate, analyze, and reflect upon the skill and process used to communicate through listening, speaking, viewing, reading, and writing.	<ol> <li>Students will use knowledge of American government and politics to make informed decisions about government and their communities.</li> <li>Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources.</li> <li>Student will act constructively to further the public good.</li> </ol>		

			an Curriculum Frameworks gan Educational Assessment Program	- MEAP)
(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
			8. All students will explore and use the characteristics of different types of texts, aesthetic elements, and mechanics—including text structure, figurative and descriptive language, spelling, punctuation, and grammar—to construct and convey meaning.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts.	

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 2: All students will demonstrate characteristics of nurturing.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn form books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.  Strand 2: Reflecting on Scientific Knowledge 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our	6.1 Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.	<ul> <li>3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.</li> <li>4. All students will use the English language effectively.</li> <li>10. All students will apply knowledge, ideas, and issues drown from text to their lives and the lives of others.</li> </ul>	7. Students will act constructively to further the public good.

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	society; and how people of diverse cultures have contributed to and influenced developments in science.			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 3: All students will analyze factors that influence human development.	Strand 3. Using scientific knowledge in Life Science. 3.1 All students will apply an understanding of cells to the functioning of multicellular organisms; and explain how cells grow, develop, and reproduce.  3.2 All students will use classifications systems to describe groups of living things; compare and contrast difference in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions.	3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.  6.2 Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  4. All students will use the English language effectively.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	Students use knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments.      Students will use methods of social science to answer questions about society.      Student will analyze public issues and construct and express thoughtful positions of these issues.

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 4: All students will demonstrate responsible individual and family decision- making.	Strand 1: Constructing New Scientific Knowledge 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn form books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.  Strand 2: Reflecting on Scientific Knowledge 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our	3.1 Students will collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms.  5.1 Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.  6.1 Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.  4. All students will use the English language effectively.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	3. Students will use knowledge of American government and politics to make informed decisions about government and their communities.  4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources.  7. Student will act constructively to further the public good.

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	society; and how people of diverse cultures have contributed to and influenced developments in science.  Strand 3: Using Scientific Knowledge in Life Science 3.3 All students will investigate and explain how characteristics of living things are passed on through generations; explain why organisms within a species are different from one another; and explain how new traits can be established by changing or manipulating genes.  3.5 All students will explain how scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted	6.2 Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design.		

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	(suited) to survive and reproduce in their environments and analyze how species change through time.  Strand 4: Using Scientific Knowledge in Physical Systems. 4.1 All students will measure and describe the things around us; explain what the world around us is made of; identify and describe forms of energy  4.3 All students will describe how things around us move and explain why things move as they do; demonstrate and explain how ere control the motions of objects; and relate motion to energy and energy conversions.			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	Strand 5: Using Scientific Knowledge in Earth Science 5.2 All students willanalyze the interaction of human activities with the hydrosphere.  5.3 All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time;and analyze the relationships between human activities and the atmosphere.			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 5: All students will practice family, social, and civic responsibility.	Strand 2: Reflecting on Scientific Knowledge 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science.  Strand 3: Using Scientific Knowledge in Life Science 3.3 All students will investigate and explain how characteristics of living things are passed on through generations; explain why organisms within a species are different from one another; and explain how	3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  3. All students will focus on meaning and communication as they listen, speak, view, read and write in personal, social, occupational and Civic contexts.  4. All students will use the English language effectively.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  12. All students will develop and apply personal, shared, and academic criteria for the employment, appreciation, and	1. Students will use their knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments.  3. Students will use knowledge of American government and politics to make informed decisions about government and their communities.  6. Student will analyze public issues and construct and express thoughtful positions on these issues  7. Student will act constructively to further the public good.

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	new traits can be established by changing or manipulating genes.  Strand 4: Using Scientific Knowledge in Physical Science. 4.2 All students will investigate, describe, and analyze ways in which matter changes; describe how living things and human technology change matter and transform energy; explain how visible changes in matter are related to atoms and molecules; and how changes in matter are related to changes in energy.  Strand 5: Using Scientific Knowledge in Earth Science. 5.3 All students will investigate and describe what makes up weather and how it changes from day to day, from season		evaluation of their own and others' oral, written, and visual texts.	

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	to season, and over long periods of time;and analyze the relationships between human activities and the atmosphere.			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 6: All students will develop a plan for individual and family wellness.	Strand 1: Constructing New Scientific Knowledge. 1.1 All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology, learn form books and other sources of information; communicate their findings using appropriate technology and reconstruct previously learned knowledge.  Strand 2: Reflecting on scientific knowledge. 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our	2.3 Students compare attributes of two objects or of one object with a standard (unit) and analyze situations to determine what measurement(s) should be made and to what level of precision.  3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts.	<ul> <li>4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources.</li> <li>7. Student will act constructively to further the public good.</li> </ul>

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	society; and how people of diverse cultures have contributed to and influenced developments in science.  Strand 3. Using Scientific Knowledge in Life Science.  3.1 All students will apply an understanding of cells to the functioning of multicellular organisms; and explain how cells grow, develop, and reproduce.  3.2 All students will use classifications systems to describe groups of living things; compare and contrast difference in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions.			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	3.3 All students will investigate and explain how characteristics of living things are passed on through generations; explain why organisms within a species are different from one another; and explain how new traits can be established by changing or manipulating genes.  3.4 All students will explain how scientifically test theories concerting the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and analyze how species change through time.  3.5 All students will explain how scientists construct and			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and analyze how species change through time.			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 7: All students will examine demographic changes and their impact on society and the family.	Strand 2: Reflecting on scientific knowledge. 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science.  Strand 3: Using Scientific Knowledge in Life Science 3.4 All students will explain how scientists construct and scientifically test theories concerting the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and	3.1 Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms.  3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.  3.3 Students draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  5. All students will read and analyze a wide variety of classic and contemporary literature and other texts to seek information, ideas, enjoyment, and understanding of their individuality, our common heritage and common humanity, and the rich diversity of our society.  9. All students will demonstrate understanding of the complexity of enduring issues recurring problems by making connections and general themes within and across texts.	<ol> <li>Students will use knowledge of spatial patterns on earth to understand processes that shape human environments and to make decisions about society.</li> <li>Students will use knowledge of American government and politics to make informed decisions about government and their communities.</li> <li>Student will analyze public issues and construct and express thoughtful positions on these issues</li> <li>Student will act constructively to further the public good.</li> </ol>

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	reproduce in their environments and analyze how species change through time  3.5 All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and analyze how species change through time.		10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	
	Scientific Knowledge in Earth Science. 5.1 All students will describe the earth's surface; describe and explain how the earth's features change over time; and analyze the			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	effects of technology on the earth's surface and resources.  5.2 All students will demonstrate where water is found on earth; describe the characteristics of water and how water moves; and analyze the interaction of human activities with the hydrosphere.  5.3 All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time;and analyze the relationships between human activities and the atmosphere.			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 8: All students will practice responsible consumer and producer behavior, rights, and responsibilities.	Strand 3: Using Scientific Knowledge in Life Science 3.5 All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and analyze how species change through time.	1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships.  2.3 Students compare attributes of two objects or of one object with a standard (unit) and analyze situations to determine what measurement(s) should be made and to what level of precision.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  2. All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions.  4. All students will use the English language effectively.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts.	<ul> <li>4. Students will use knowledge of the production, distribution and consumption of goods and services to make personal and societal decisions about the use of scarce resources.</li> <li>6. Student will analyze public issues and construct and express thoughtful positions of theses issues.</li> <li>7. Student will act constructively to further the public good.</li> </ul>

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 9: All students will assess the effects of technology on the family.	Strand 2: Reflecting on scientific knowledge. 2.1 All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science.	1.2 Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability to compare patterns of change.  3.1 Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats.  3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	All students will demonstrate the ability to read and comprehend general and technical materials.      All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts.	1. Students will use their knowledge of the past to construct meaningful understanding of our diverse cultural heritage and to inform their civic judgments.

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
Content Standard 10: All students will demonstrate the use of community resources to solve individual and family issues.	Strand 3: Using Scientific Knowledge in Life Science. 3.3 All students will investigate and explain how characteristics of living things are passed on through generations; explain why organisms within a species are different from one another; and explain how new traits can be established by changing or manipulating genes.  3.5 All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and analyze how species change through time.	1.1 Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships.  3.1 Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different forms.  3.2 Students will examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively.	1. All students will demonstrate the ability to read and comprehend general and technical materials.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts	1. All students will demonstrate the ability to read and comprehend general and technical materials.  10. All students will apply knowledge, ideas, and issues drawn from text to their lives and the lives of others.  11. All students will define and investigate important issues and problems using a variety of resources, including technology to explore and create texts

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	Strand 5: Using Scientific Knowledge in Earth Science. 5.1 All students will describe the earth's surface; describe and explain how the earth's features change over time; and analyze the effects of technology on the earth's surface and resources.  5.2 All students will demonstrate where water is found on earth; describe the characteristics of water and how water moves; and analyze the interaction of human activities with the hydrosphere.  5.3 All students will investigate and describe			
	what makes up weather and how it changes from day to day, from season to season, and over long periods of time;and			

(Michigan Life Management Education) Family and Consumer Science Content Standards (SBE Approved, 1998)	Science Strands	Mathematics Content Standards	English Language Arts Standards	Social Studies Strands
	analyze the relationships between human activities and the atmosphere.			